

~~TOP SECRET~~

MISSION BRIEFING
&
ACC EPSILON
OPERATIONS GUIDE

AMSTRAD 6128

VERSION

CARRIER COMMAND

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Rainbird Software, Unit 1, Hampton Road, Tetbury, Gloucestershire.

MISSION BRIEFING

INCOMING SUB-ETHA FACSIMILE...

FROM : FLEET ADMIRAL GEORGE H. WHITTAKER

DATE: 4th June 2166

TIME: 15:37

ENTER OFFICIAL IDENTIFICATION SEQUENCE: *****
ACCEPTED.

DOCUMENT PROCEEDS:

Commander, thank you for making yourself available at such short notice.

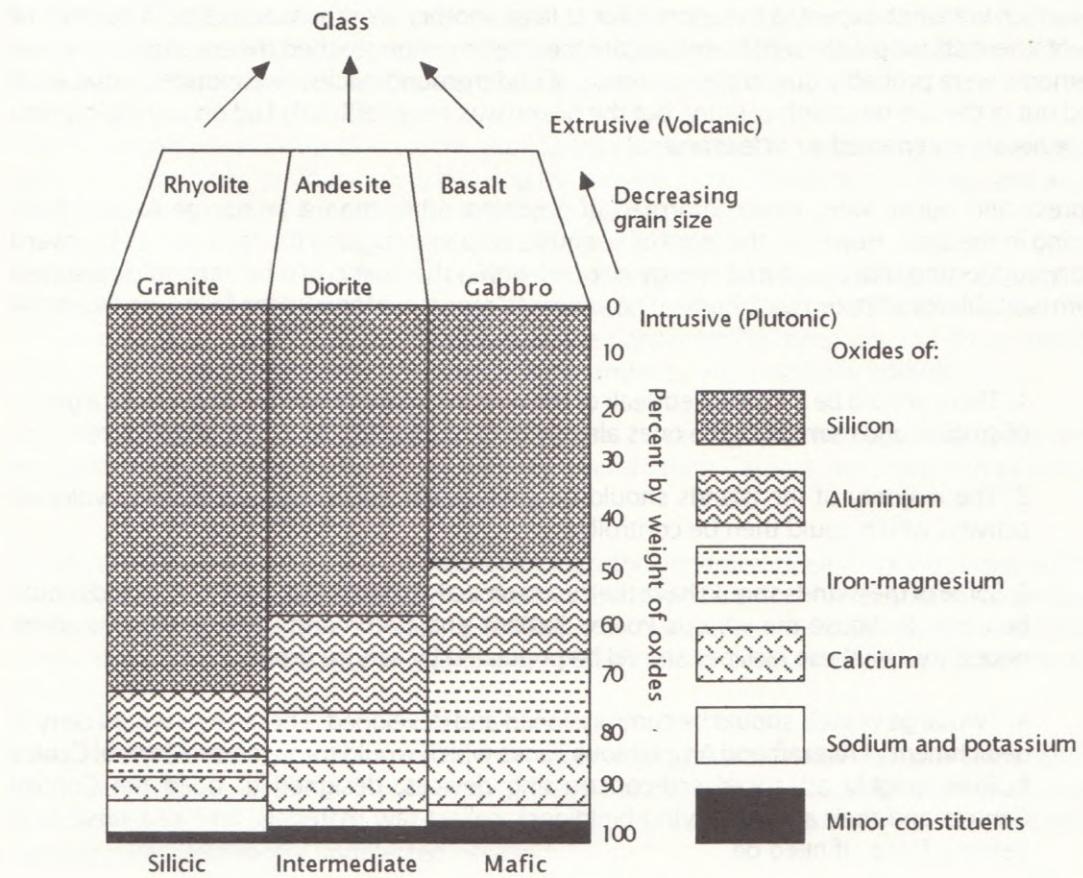
The following information is of a highly confidential and sensitive nature and must not fall into the hands of dangerous and irresponsible persons. I am, of course, speaking of politicians and journalists. This document has been prepared by Commander Sherwood, and only he, you and myself are aware of the full extent of this sensitive situation...

Document received 29 MAY 2166:

It is a little known fact amongst the general populous of this nation that almost three years ago the ship SS Delta made an exciting and economically miraculous discovery whilst on a routine tour of duty in the Southern Ocean.

The Delta is a member of our small fleet of Fuel Hunters - specially designed ships whose sole purpose is to scour the ocean bed, probing the silt and drilling into the rock, searching for the rarest commodities in the modern world - Fossil Fuels and essential industrial metals.

Mineral Content of Island Lava



After reports of inconsistent air pressure and unpredictable tidal activity in an area 670 miles due west of Gamma Base, Delta discovered that a number of small volcanic islets had emerged from the sea and even more were emerging, due to a huge movement in the Treltor and Avapola tectonic plates which were not expected to separate for at least another six thousand years. A number of eminent scientists who were sent to investigate the phenomenon reached the conclusion that the movements were probably due to the multitude of underground nuclear weapon tests that were carried out in the late twentieth century, but the blame was never officially laid on any nation who had previously entertained a nuclear arsenal.

The press and public were never informed of anything other than a 'minor geological fault' occurring in the area. However, the team of scientists who investigated the fault also put forward a theory suggesting that the stored energy trapped within the fault could be 'tapped' and stored in a form suitable for shipping back home. The scientists' report put forward the following five-point plan:

1. There should be a 'controlled' leak of the volcanic magma energy, to produce a group of small islands similar to the ones already in existence, but of a controllable size.
2. The majority of the islands should be geologically encouraged to develop volcanic activity, which could then be controlled.
3. Some of the islands should have their volcanic activity inhibited, and these islands could be used to house the various Power Stations and Command Centres that would be necessary. All these facilities should be populated by service droids.
4. Two large vessels should be commissioned and developed. These ships would carry a detachment of Aircraft and Amphibious Tanks which would transport the Control Centre Builders (highly advanced self-constructing devices, designed to build the Control Centres and their accompanying buildings), collect raw materials, and also serve as a defence force, if need be.

5. The Aircraft Carriers would start on opposite sides of the island archipelago, and work towards 'populating' all the islands within a two year period.

With the whole planet in the midst of a colossal energy crisis, the government decided to keep the entire matter secret, whilst proceeding with the simultaneous design and construction of the two Carriers, and the controlled development of the archipelago of islands.

The Carrier commission was given to the giant Draziw Industries Corporation, as they were the only contractor who were in a position to develop the aircraft, tanks, Command Centres, and ancillary service droids necessary for operation within the Carrier.

The first carrier, the ACC Epsilon was completed eighteen months ago and set for sea trials in the Gamma Base area of the Southern Ocean. A number of significant modifications to the original design were made, and it was decided to make the Carrier totally computer and droid controlled, instead of having an on-board supervisory Commander as was originally intended.

Unfortunately, time was of the essence, and many of the agreed modifications could only be incorporated in the second Carrier, ACC Omega before both Carriers were required to start their duties.

Epsilon and Omega both set sail for the archipelago and anchored close to their designated "home islands", which had already been provided with a Command Centre, Power Station, a runway and a web of defensive weaponry, including ground to air missile launchers and high power chemical lasers. It was from the two home islands that the expanding network of occupied islands was to stem.

It was during the final sea trials of the ACC Omega that Draziw Industries' Assistant Chief Engineer was found dead in his office. The initial post-mortem showed that he had died of a massive stroke, but following a tip-off from one of K-16 section's agents, extensive tests showed that he had been injected with a previously undetected poison.

Covert enquiries began amongst the members of the Technical Division at Draziw. Suspicion fell upon one of the programmers working on ACC Omega, and within a week, he had absconded. The following day, the Fleet Admiral received a document, a transcript of which is detailed below:

“...Whittaker - Your agents managed to discover our fiendish plan, but it's too late to stop it now.

The Control Computer software has been modified, and the ACC Omega is now under the direct control of the STANZA Organisation. Our demands are simple: If we do not receive payment of 15 Billion Dollars within 72 hours, the ACC Omega will be activated. It is now programmed to occupy and destroy all the islands, methodically...”

Our immediate action was to examine the control software of the ACC Omega. The software had indeed been modified, and the Omega could now be instructed to occupy an island using similar techniques originally developed for the planting of the Command Centre Builders. Once an island was occupied, the Omega would move on to another island, and gradually spread its network, using the Manta fighter planes and Walrus amphibious assault vehicles to support the Carrier. The software also contained numerous in-built time-key encrypted tamper proof routines, so modification of the code was impossible within the given time limit, even with the advanced new Ocran Socrates series of reduced laser-gate computers. The risks were all too apparent.

The nuclear solution was rejected, since destroying the Omega would mean risking a greater disturbance of the geological plates, which could result in a major planet-wide catastrophe.

All the available agents in K-12 and K-16 sections were despatched to seek out members of Stanza, and following the capture and subsequent suicide of four Stanza associates, the deadline was cut by 24 hours. We now have until 12:00 tomorrow to either pay the ransom (and hope that control

of the ACC Omega will be returned to us) or face the consequences of losing our only hope in the race to provide a source of energy to the people of this nation.

In the event of no solution being found by tomorrow, we may have a possible way of combating the destructive forces of the Omega:

Our Chief programmer, Dr. Oliver Baird-Onions, believes that it may be possible to redirect the Omega's control system from its occupation task by engaging the Omega with the forces of the ACC Epsilon. It is hoped that the Omega's defensive systems will be activated, resulting in the island occupation slowing as it attempts to defend itself. Furthermore, it is highly likely that by occupying as many islands as possible using the ACC Epsilon, and taking control of Command Centres which have been constructed by the Omega's forces, the Omega will try to recapture islands, slowing its incessant spread.

We have calculated that the only way to actually halt the Omega is to either destroy it (only possible by weakening its resources and power) or occupy all the islands in the complex, including the Omega's heavily defended base island.

By modifying the Remote Reprogramming Pod, we have managed to create what is effectively a computer 'virus', suitable for dropping on Omega controlled Command Centres. The virus program will logically modify the Command Centre's operating system and turn an enemy controlled Command Centre into a friendly one.

It should be possible to actually destroy an Omega controlled Command Centre if you need to resort to totally destructive measures, although this would mean that you would have to build your own Command Centre from scratch, which is obviously more time and resource consuming.

There are three types of Automatic Command Centre Builder, each of which, when successfully deployed, will determine the island type that it develops. You will have to construct an island network which links to your Base island, and also define a Stockpile island to contain the weaponry, resources and equipment that your island network manufactures.

The structure of your network will control the speed at which equipment is shipped to the stockpile island. It is also important to keep the Carrier relatively close to the stockpile island in order for equipment to be shipped to the Carrier as quickly as possible.

At all times bear in mind the fact that the enemy Carrier will be trying to construct its own island network, and it will also try to break up your own network to prevent weaponry and equipment being supplied to your Carrier.

I will leave the attack strategy entirely up to yourself, but the reports from the programming department indicate that it would be unwise to make an all-out assault upon the Omega, or its home island. The strategy most likely to succeed is based upon the principle of colonising a small group of islands around your home island, to create a 'safe area', then extend your network by creating protective clusters of islands, until you are in an advantageous position from which you can make an assault upon either the ACC Omega, or its home island.

A full Carrier Operations Guide has been included with this document, and I suggest that you read it fully during your journey before you rendezvous with the ACC Epsilon.

Good luck, Commander, and once again, thank you for accepting this challenging and dangerous mission.

...TRANSMISSION ENDS.

OPERATIONS GUIDE

INTRODUCTION

Before you read this Operations Guide, you are advised to study the Mission Briefing, and the machine specific User Guide, which will explain which control systems are available for your computer (e.g. joystick, mouse) and how to load the game.

This Operations Guide is split into four main sections - each section relating to four of the five icons which are found on the left of the game screen display. The first section (file and program management) is described in the machine-specific user guide.

Please note that this manual is laid out in the same way as the icons are ordered in the game, and it should be used as a reference manual, rather than reading it end-to-end.

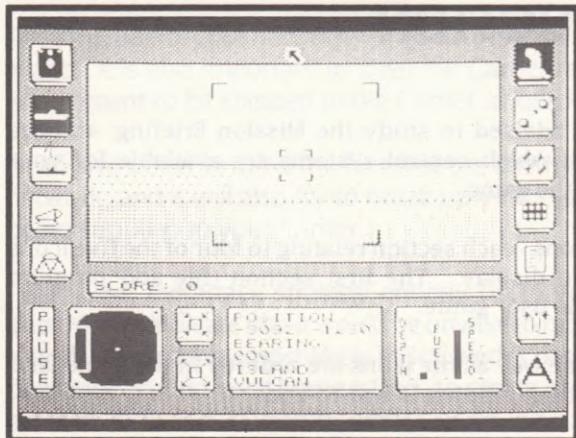
For each of the four major sections on the left of the screen, a bank of up to five related icons are displayed on the right hand side of the display. For instance, selecting **AAV CONTROL** results in the five icons for **Direct Control**, **Navigation**, **AAV Fitting**, **AAV Launching** and **AAV Information** being displayed.

For each of the five icon sections on the right of the display, a specialised control panel is displayed at the bottom of the screen.

Every time a new icon is introduced, it is shown on the page as well as being described in the text.

CARRIER CONTROL

HELM



SPEED CONTROL

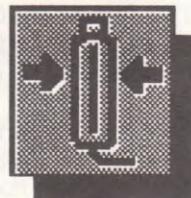
The Carrier can move both in forward and reverse. The Speed indicator is split into four major divisions - any speed above the first quarter means that the Carrier is moving forward, and anything below this mark represents reverse. To change the speed, directly click on the Speed indicator itself to set the desired speed. Because the Carrier is a very large and heavy vessel, it moves comparatively slowly, and takes time to build up (and decrease) speed. Clicking on the **AUTOPILOT** icon twice will bring the Carrier to a halt.

The top speed of the Carrier, when operating on full power with all drones docked, and in deep water is 178 knots. With drones on station, an aircraft landing, or while the Carrier is anchored off an island in shallow water, the top speed of the Carrier will be limited to around 40 knots, and its

ROTATING THE CARRIER

The Helm is the Direct Control mode for the Carrier. By moving your control device left and right while in 'Control mode', you are able to rotate the Carrier note that it is a slow and un-maneuvrable craft when at low speed.

Clicking on the **CENTRE UP** icon will result in the Carrier ceasing to rotate.



maximum speed in reverse is 22 knots. The Carrier's top speed is influenced directly by its damage status.

AUTO-PILOT

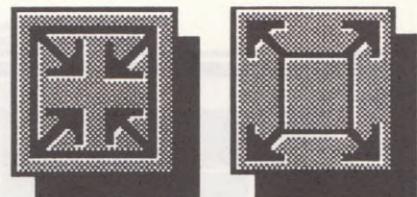
By clicking on the **AUTOPILOT** icon, the Carrier will be automatically set on course as defined in the Carrier's Map Command section.

GROUNDING

The Carrier is equipped with an automatic Anti-Grounding computer whose sole purpose is to prevent the Carrier from running aground. If the Carrier is in danger of grounding, its engines will be thrust into reverse to move the Carrier away from the island. Please note that the Anti-Grounding computer will not prevent the Carrier from colliding with other vessels or craft.

RADAR

Positioned in the bottom left-hand corner of the screen is the ship's Short-range scanner display. Quite simply, it shows all tangible ground, sea and air based detail within the proximity of the Carrier, including the shore line of the islands, when within range. To the right of the radar are two icons - these are **ZOOM IN** and **ZOOM OUT**, and they allow you to select the magnification level of the radar from the four available.



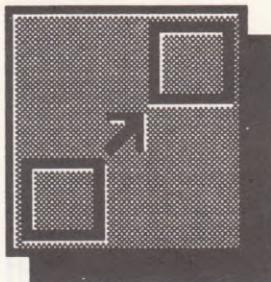
LOCATION STATUS DISPLAY

Situated in the bottom centre of the screen is the Carrier's Location Status Display, which contains information relating to the current position of the Carrier using the standard X,Y coordinate format, the current bearing of the Carrier in degrees, and the island (if any) of which the Carrier is in range.

FUEL USAGE

The Carrier's own fuel usage allows it to travel approximately 420 kilometres on a full complement of fuel. Additional refined fuel will be shipped back to the Carrier via the Resource Network, which will be your only salvation if you run low on fuel.

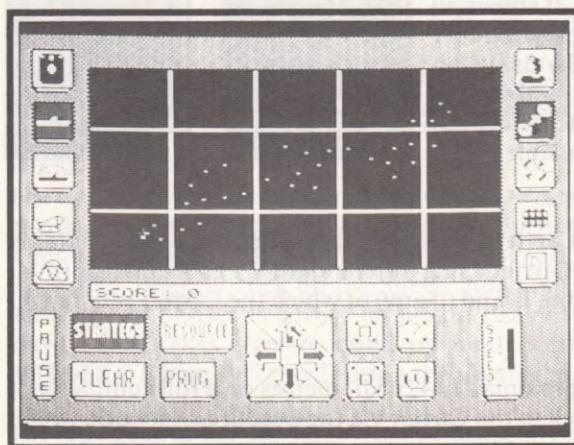
CARRIER NAVIGATION



The Carrier Navigation section is the main map control section within the Carrier environment. From within Carrier Navigation, you can plot and program the course of the Carrier, find out information about the islands, the location of the enemy carrier and monitor the Resources network. At the beginning of the conflict, the Carrier is situated at the bottom left of the map, and the enemy Carrier is situated at the top right, both anchored off their Home Base islands.

MAP MANIPULATION

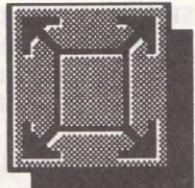
The Carrier's Advanced Navigation Computer is accessible from three sections of the Carrier's control system - Carrier Command, AAV Command, and Aircraft Command.



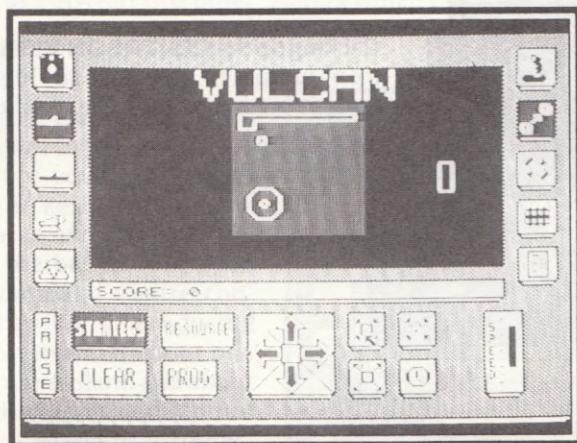
Two modes of map manipulation are available in the Carrier Navigation section. The first is Strategy mode, which shows the location of the two Carriers, any programmed course for your Carrier, and geological island detail such as volcanoes and runways on islands. Strategy mode is selected by clicking on the **STRATEGY** icon, although this is always the default setting.

There are three 'alignments' for each island, which are Neutral, Friendly, and Enemy. These are depicted by use of different colours. For a list of these colours, please refer to the machine specific User Guide.

You can scroll the map in four directions by clicking on the four directional arrow icons. The map has eight different levels of resolution - at the lowest level of resolution, the whole map can be viewed, and at the highest level, surface detail on individual islands can be seen. To change the magnification level, click on the **ZOOM IN** and **ZOOM OUT** icons, situated to the right of the arrow cluster.



By moving the arrow pointer anywhere on the map, you can zoom in and automatically centre the map by selecting direct control mode/Pointer mode (i.e. by pressing the second mouse button, or pressing the appropriate key). At the highest level of magnification, doing this will automatically centre the map on the cursor. At lower levels of magnification, doing this will centre the map on the island closest to the cursor.



SETTING THE CARRIER'S COURSE

To set the destination for the Carrier, firstly utilise the map manipulation icons to zoom in to the required resolution, and then click on your chosen destination point. A small diagonal cross-hair marker will be plotted at this point.

Next, you should select the speed at which you wish the Carrier to travel, by clicking on the **SPEED** indicator situated at the bottom right of the screen. The speed of the carrier can be changed at any time on the map screen whilst it is following a programmed course. To program these settings into the Navigation Computer click on the **PROG** icon - the message **DESTINATION PROGRAMMED** is displayed on the message line. Provided the Carrier is on Autopilot, and not on a collision course for an island, it will immediately change its course and head for the programmed destination, automatically switching the Carrier to Autopilot mode. If you wish to clear a navigation program, click on the **CLEAR** icon.



Clicking on the **CENTRE ON VEHICLE** icon jumps to the second highest resolution and centres the display on the Carrier.

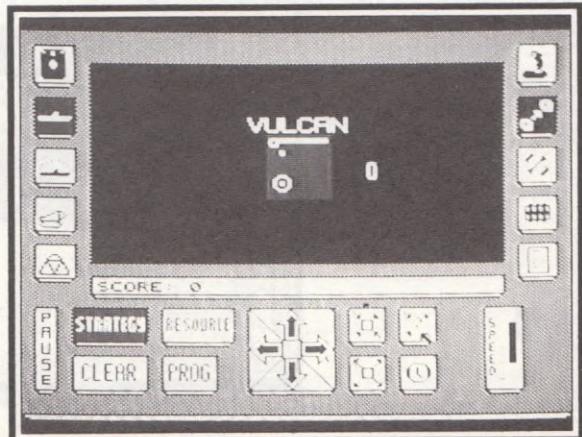
RESOURCE NETWORK

Clicking on the **RESOURCE** icon puts you in Resource mode. The main map screen shows the island types (base/defence/factory/raw materials), but the Carriers are not visible. It is this network that determines the speed at which raw materials are shipped to Factory islands, where weaponry and other equipment are constructed, and then shipped to the Stockpile island via a fleet of submersible cargo drones, or submarines. The larger and more comprehensive the network, the more efficient the production and shipping of resources.

As you take control of a number of islands your network will spread across the map, and islands displayed in the colour of your forces will show the extent of your network. Owing to volcanic ridges and other geological features, the network can only maintain itself between certain islands, so if you take control of two islands close to each other, the network may not be as effective at shipping supplies between them as between two other islands which are a greater distance apart.

THE BASE ISLAND

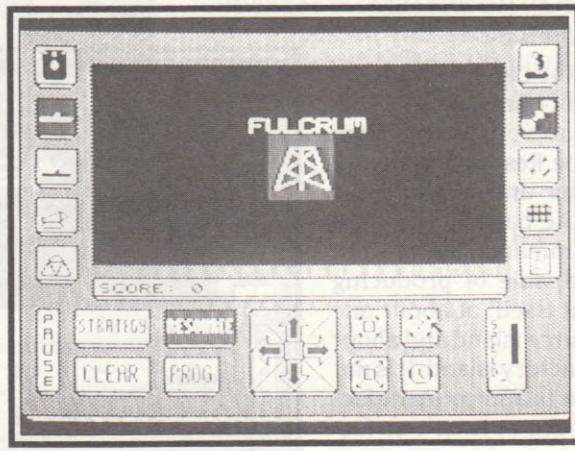
The Base island is where the Carrier is initially anchored when the conflict breaks out. This island is very important to you, as it is from here that you build up the Resource Network which serves your Carrier and other forces throughout the rest of the battle. The Base island already has a Command Centre constructed on it, and is capable of producing resources and equipment itself, at about one third of the rate of a Resource island and about one tenth of the rate of a Factory island. It is not advisable to ask the base island to manufacture items. You should have at least one factory island set up before you request items.



The Base island is also initially designated as the Stockpile island (see later in this Operations Guide for more information). Most importantly, the Base island controls the flow of supplies throughout the whole network - if the Base island is taken over by the enemy, the whole network will 'freeze' - no new supplies will be shipped around the network, and submarines en route with already manufactured items will be lost.

RESOURCE ISLAND

Resource islands are constructed by planting Resource ACCB's (Automatic Command Centre Builders - see the AAV Direct Control section for more information) on unoccupied islands. Once the Command Centre has been built, it then constructs mines, rigs and ancillary buildings to store the mined raw materials. These raw resources are then shipped via the Resource Network to Factory islands, where they are used to manufacture weaponry, refined fuel, and other equipment required by the Carrier's forces. ACCB's must be dropped on unoccupied and totally unconstructed islands. Dropping an ACCB on a neutral island that is dismantling its buildings will result in losing the ACCB.



FACTORY ISLANDS

Factory islands are constructed by planting Factory ACCB's on unoccupied islands. A completed Command Centre then constructs factories to manufacture equipment and refine fuel for the Carrier's forces, which also act as warehouses for the storage of these supplies.

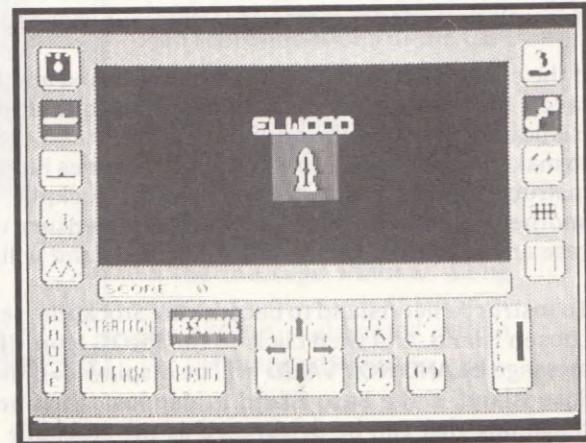
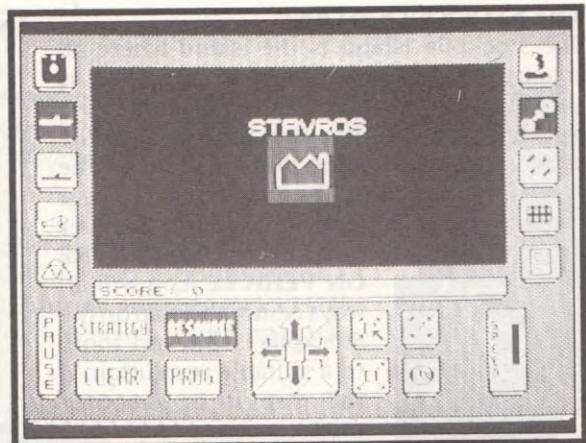
The completed supplies are shipped to the Stockpile island via the Resource network.

DEFENCE ISLANDS

Defence islands are different from Resource and Factory islands in the sense that they do not primarily produce anything. They are constructed by planting Defence ACCB's on unoccupied islands.

A completed Command Centre constructs defensive stations, including a Marauder unit (a squadron of droid-controlled flying drones which are extremely agile and are armed with deadly heat-seeking missiles), and runways on islands which are large enough, to enable you to refuel your Manta aircraft.

Runways are arbitrarily built, so the island type (as selected by the ACCB) does not affect runway building in any way. Defence islands can produce resources at one eighth the rate of a dedicated Resource island.



THE STOCKPILE ISLAND

The Stockpile Island is the island where all constructed weaponry, fuel and equipment is shipped by the Resource Network. From there, a Supply Drone ferries the cargo back to the Carrier itself (providing there is room on the Carrier for the cargo). The Carrier must be near to the stockpile island for resource transfer to be affected. The **CENTRE ON VEHICLE** icon will always centre the map on the Stockpile Island and zoom to a suitable resolution, if the map is in Resource mode.



Any island under your command can be the Stockpile island, and it is advisable to make sure that it is well defended (i.e. make the adjacent islands Defensive).

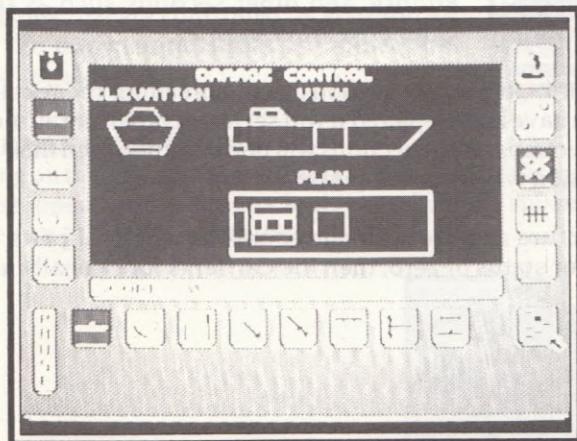
If the connection between the Stockpile island and the rest of the network is broken, resources will take a proportionately longer time to reach their destination, depending upon how many enemy islands are blocking the optimum route. Under these circumstances, you have a tactical decision to make. You can wait until the Supply drones have ferried the remaining en route cargo, and then instruct another island to become the Stockpile. Alternatively, you can immediately instruct another island to become the Stockpile to ensure that new resources are being shipped, in which case any resources on the old Stockpile island will be lost.

To instruct a new island to become the Stockpile, select Resource map mode, centre the map on the chosen island, and then click on the **PROG** icon. If the selected island does not belong to you, the message **ISLAND NOT VALID** will be displayed. If the Stockpile island is taken, it reverts back to the Base island. If the Base island is also lost, then unless there is at least one of your own islands remaining that can be designated as the stockpile island, you will not be in a position to receive further stocks.

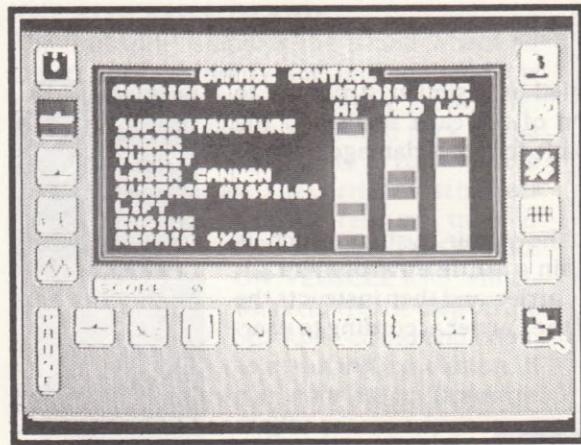
DAMAGE CONTROL

Owing to its cellular composition which is modelled on a similar structure to carbon-based life forms (the structural definition of the each section of the Carrier is stored within every cell), the Carrier is able to repair damage to itself automatically.

The Damage Control Computer is the core of the repair system which is fundamental to the operation of the Carrier within a battle environment. It monitors the damage status of each section of the Carrier, and then instructs the Automatic Repair System to repair each section of the Carrier according to user-defined priorities.



Selecting the Damage Status screen results in the computer displaying Elevation, View and Plan representations of the Carrier, below which is a row of icons, each assigned to one of the major sections of the Carrier. Selecting any of the eight icons will display the section name accompanied by a 'functioning level' percentage value for the section in the message window, along with a graphic representation of the section highlighted within the three ship diagrams.



By clicking on the **SET PRIORITIES** icon to the right of the Carrier section icons, you are able to select the repair priority for each section. The priorities available are **HIGH**, **MEDIUM**, and **LOW**.

It is a good idea to always keep the **Repair Systems** setting on high, as this is the section which repairs the rest of the Carrier sections. The other priorities should be set according to your current combat state. For example, if the Carrier is stationary, but under attack from enemy aircraft it is beneficial to put the **Laser Cannon** and the missile systems on High Priority, and other sections such as the Engines on a lower priority.

The Automatic Repair Computer will repair high priority sections first, spreading the repair time evenly between all the sections. Once these have been repaired it will set about repairing all medium priority sections, and then all low priority sections. Many sections will be operative when their repair level is over 50% - however, they will function with reduced power and efficiency.

It is important to note that the superstructure and the laser turret are the essential parts of the Carrier. If either of these parts fall to a repair status of zero, then the Carrier is functionally useless and the game will terminate.

STORES

EQUIPMENT STORES

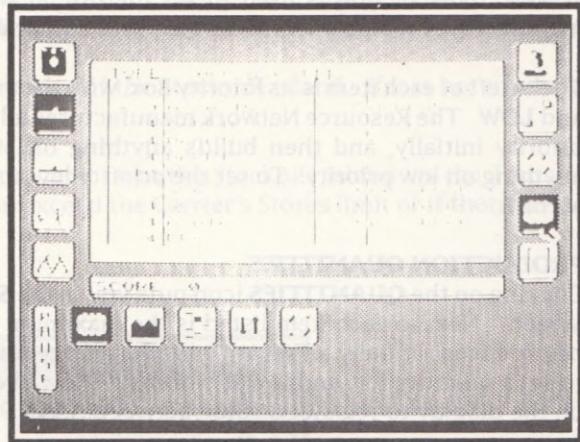
The Carrier's Hold contains the stores and fuel supplies, and they are managed by the electronic Quartermaster computer.

Each of the various types of weaponry, vehicles, fuel and other equipment contained in the stores are displayed, along with the quantity currently held on the Carrier, under the title of **ACC QUANTITY**.

New equipment is manufactured on the various islands that are controlled by your forces, using the raw materials that are mined and refined on each island.

STOCKPILE QUANTITIES

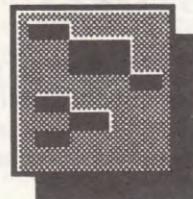
Clicking on the **STOCKPILE QUANTITY** icon displays a screen showing a list of items that have been built, shipped back to the Stockpile island via the subaquatic shipping lines, and then stored until you return to refit your Carrier.



PRODUCTION PRIORITIES

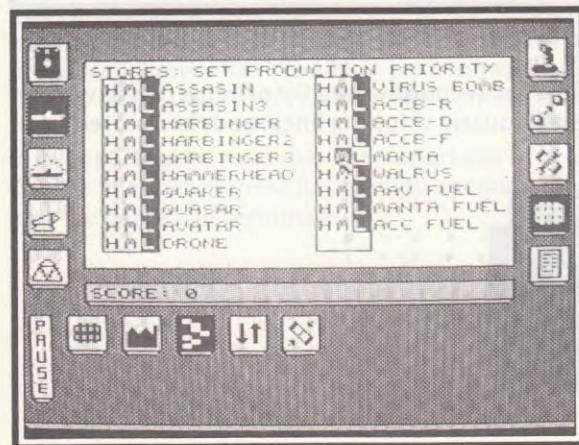
Clicking on the **PRIORITIES** icon puts you in the **SET PRODUCTION PRIORITY** screen. This section is used to set the rate at which the Resource Network manufactures replacement weaponry and equipment.

To the left of each item is its Priority Box, with the three setting **HIGH**, **MEDIUM**, and **LOW**. The Resource Network manufactures all equipment which is on High priority initially, and then builds anything on Medium priority, and finally anything on low priority. To set the priority level, simply click on the letters **H**, **M**, or **L**.



PRODUCTION QUANTITIES

Clicking on the **QUANTITIES** icon puts you in the **SET PRODUCTION QUANTITY** screen. Next to each item listed is the maximum quantity that is currently to be produced, initially all set to zero. To change this, click on the item you wish to set a quantity for, and it will highlight. Now click on the up or down arrows on the display to register a value between 0 and 99.



Use the above procedure to set the priorities and quantities for all the equipment and fuel that you require. Once you have set these values, the Base island Command Centre assigns a Factory island to produce the items that have been set on high priority first, then those on medium priority and finally those on low priority.

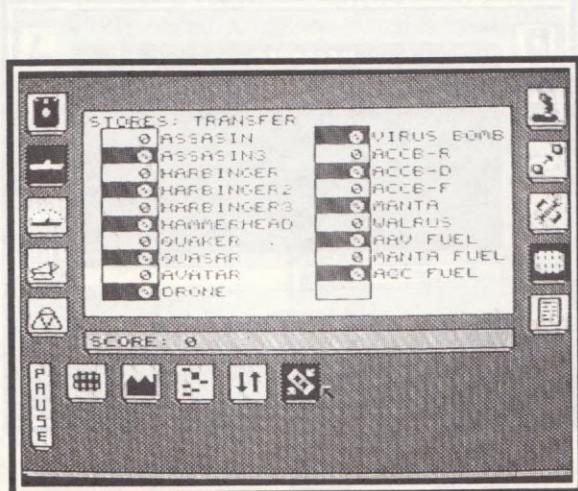
Manufactured supplies are shipped to the Stockpile island via the subaquatic network, and the quantities defined in the Set Production Priority section are always maintained whenever possible.

SUPPLY TRANSFER

All manufactured equipment is transferred from the Factory and Resource islands to the Stockpile Island, where it is immediately transferred to the Carrier. This section enables you to transfer supplies from the Stockpile Island to the Transfer Drone, which ferries the supplies to the Carrier.

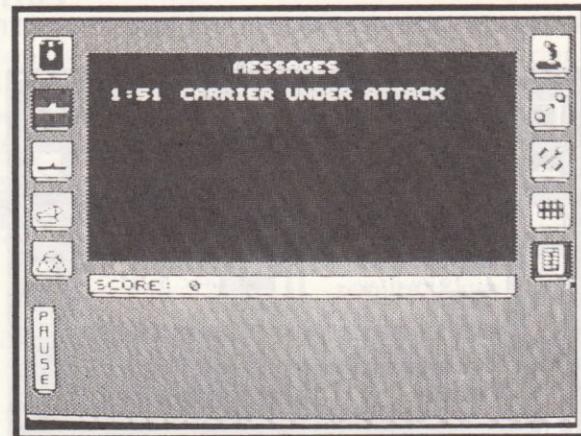
To transfer the supplies, the Carrier must be in range of the Stockpile island. If it is not in range, you will not be able to transfer supplies.

Click on the appropriate quantity box to move one unit from the Stockpile Island via the Transfer Drone to the Carrier - you will be informed if you exceed the Carrier's Stores limit or if there are no more units available to transfer.



MESSAGING

The Carrier is equipped with a comprehensive message reporting facility. Every time an important message is generated by one of the Carrier's on-board computer systems it is displayed on the central message line or sent direct to the Messaging Computer. By selecting the Messaging icon, you are able to read the most recent messages received within the previous two minute period, as well as an indication of how long ago the message was reported. Some messages will be superseded by events rather than retained for the two minute duration. For example, "Manta destroyed" will supersede "Manta near comms limit".



CARRIER DEFENCE

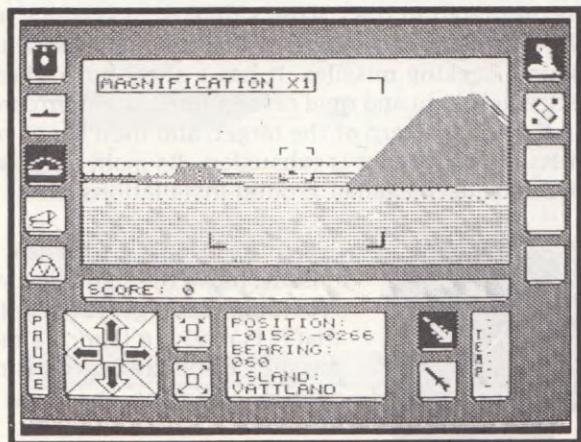
TURRET GUN

Mounted on top of the Carrier is a rotating turret supporting a high-power chemical laser and a surface missile launcher. The turret is manoeuvrable in two axes - it can rotate by 360 degrees, and also elevate up and down.

The turret can be moved in direct control mode, simply by moving the selected control device left, right, up and down. Alternatively, you can select Pointer mode, which enables you to click on the four arrow icons to position the targeting sight, and click in the centre of the arrow cluster to fire the selected weapon.

Situated to the right of the four arrows are the zoom control icons. These allow you to zoom in on a target, with four levels of magnification from x1 to x8. This is extremely useful when trying to search out island-based targets from the Carrier, although at higher magnifications the lasers are not as accurate.

In the middle of the display is the standard information panel, which gives the current coordinates of the Carrier, along with its bearing and the name of the island of which it is within range. To the right of the information panel are the two icons which select either the laser gun or the surface missiles.



LASER CANNON

The laser itself is of the high power, long range dual beam variety, and since it is directly powered from the Carrier's neutron drives, it is extremely potent when used against almost all targets. The ultimate laser range is limited due to atmospheric ionisation.

On the far right of the control panel is the laser temperature gauge. Every time the laser is fired, the laser mechanism generates a tremendous amount of heat - if the laser temperature rises too high, the laser will function firstly with less power, and finally it will fail. If the laser temperature rises into the danger area, you should allow it to cool sufficiently before using it again. Attempting to use an overheated laser will result in actual damage to the laser. Set the repair priority for the laser gun to High in the Damage Control screen, if it should fail to function.

SURFACE MISSILE LAUNCHER

Because of the Carrier's ability to anchor in very shallow water off an island, the revolutionary and technically advanced "Hammerhead" low flying remote surface-to-surface missile facility has been incorporated in the Carrier's defensive systems, in order for it to be able to attack island based defence stations and enemy shipping. The Hammerhead is the very latest of the intelligent heat-source seeking missiles. It has a short-burn plasma jet propellant, and is constructed from an extremely light and rigid carbon-fibre/titanium composite. The on-board guidance system locks on to the heat pattern of the target, and then keeps track of it until the target is out of range, or the missile's propellant is exhausted. Its main purpose is to destroy other air-based targets, although it can be used against ground installations.



Select the **MISSILE** icon near the bottom right of the control panel. To aim a missile, move the sight over your prospective target and press the fire button. Providing the target is a legitimate one, the sight will flash rapidly, signalling that it is ready to launch a missile. Press the fire button again to launch the missile. If the fire button is not pressed within two seconds of the targeting system locking on, the target will be cancelled.

There are a limited quantity of Hammerhead missiles available, although these can be replenished by directing the island network factories to manufacture replacements.

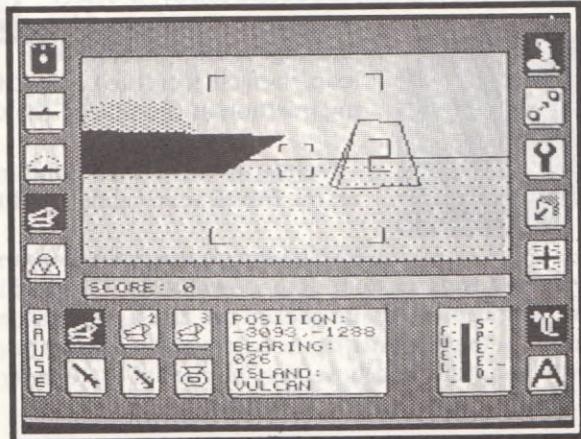
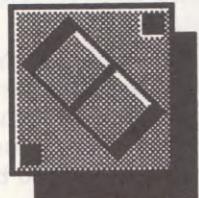
DRONE POSITIONING

Drones are inflatable decoy units designed to provide a sacrificial defence against enemy AAV and low-level missile attack. They are remotely controlled from the Carrier Defence Computer. Drones automatically follow the Carrier as it moves around and their configurations can be reprogrammed at any time.

In the event of an enemy projectile entering close proximity of a drone, the drone will generate a heat field, as well as a surrounding shield of electromagnetic interference, in an attempt to convince the projectile's guidance system that it has reached its target, hopefully preventing any damage to the Carrier. Drone shields are reduced by 10% for each enemy missile they detonate.

Any direct contact with a Drone will result in the immediate detonation of the highly-packed explosive which is encased within its inflatable shell. The pressure sensing mechanisms built into the Drone will prevent detonation if a large wave or sea creature were to come into contact with its surface.

The Carrier may be equipped with two active Drones at a time. If a Drone is destroyed, it is automatically replaced from the stores. The Resources network can manufacture replacement drones and transport them back to the Stockpile island, depending upon the availability of raw materials throughout your island network.



By selecting the Drone Positioning screen, you are able to move the Drones around into your own strategic positions.

The main display shows the Carrier and the exclusion perimeter which defines the minimum distance that the Drones may be positioned at (any closer and they are in danger of being detonated by the Carrier itself).

LAUNCHING DRONES

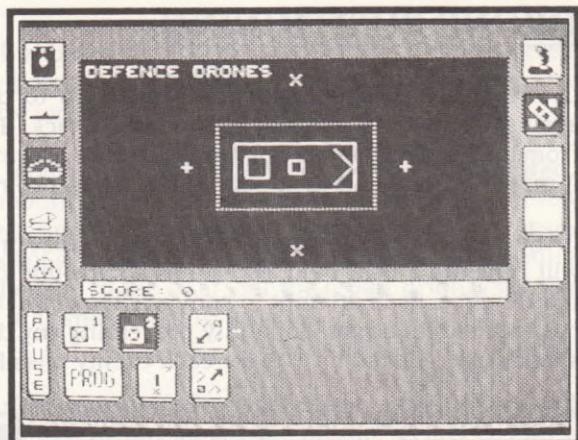
To launch either a docked drone or a drone that is replacing one that has been destroyed, select

either drone 1 or drone 2 by clicking on the appropriate icon, then click on the **LAUNCH** icon. The drone will be launched into a stationing position at the rear of the Carrier, and is depicted on the screen as a +.



To send a drone to its programmed destination (shown as a x on the screen), click on the **PROG** icon (note that **PROG** programs both drones).

By clicking on the main diagram, you can select an individual position to allow you to design custom defence patterns. Even while a drone is travelling to its new position, the moving drone may be clicked on, and a new destination set by clicking on the **PROG** icon. If you attempt to program a drone to travel to a destination within the proximity boundary, the destination will be automatically set for the rear of the Carrier.



DOCKING DRONES

By clicking on the **DOCK** icon, the drone will be sent to the rear of the Carrier, and then docked within the Carrier itself.



While the drones are active, the top speed of the Carrier is reduced - therefore it is advisable to dock all drones if you wish the Carrier to travel at full speed.

DRONE PATTERN LIBRARY

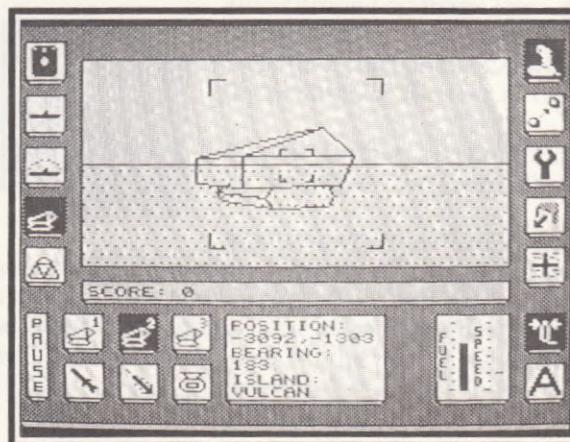
Located next to the **PROG** icon is the Drone Pattern Library icon. By clicking on this icon, you are able to cycle through a selection of four pre-defined Drone patterns. Clicking on the **PROG** icon will result in the currently active Drones assuming the library pattern. Again, while the Drones are in transit, their destinations may be redefined.

AMPHIBIOUS ASSAULT VEHICLE CONTROL

DIRECT CONTROL



The 'Walrus' (Water And Land Roving Utility Shuttle) class Amphibious Assault Vehicle (AAV) is a highly advanced and flexible all-terrain tank, with a variety of special functions which make it especially suitable for operating within the environment of the Carrier. It can be fitted with a number of versatile weapons including the Avatar heavy-duty chemical laser and the Harbinger surface missile, as well as a number of special cargo pods.



The Carrier can store up to six AAV's, although only three can actually be active at a time. The active AAV's are stored in the Carrier's Hold. Information regarding the Fitting, Course Plotting and Launching/Docking of the AAV's can be found in later sections of this Operations Guide.

Once an AAV has been fitted and launched, select the **DIRECT CONTROL** icon, and then click on the appropriate AAV icon (1 to 3), located to the left of the control panel. The AAV will be in the vicinity of the Carrier (or the place where the Carrier was when the AAV was launched).

To assume control of the AAV, select direct control mode.

STEERING THE AAV

Set your desired speed by clicking directly on the **SPEED** indicator - the speed will increase or decrease until the correct setting is reached. The maximum speed of the AAV on land is 184 kmh (115 mph), although its top speed is directly influenced by its repair state. In the water, the AAV's top speed is influenced by the turbulence of the water, but it is around 30% slower than when on land.

To steer the AAV, simply move the control device left and right. The further you move it, the faster the AAV will rotate.

The AAV has two rotation modes. The first is known as 'free rotation' and this means that the AAV will keep spinning unless the control device is moved in the opposite direction to neutralise the spin. To stop the AAV rotating, click on the **CENTRE UP** icon to enable 'dampened rotation'. In this mode, the AAV will stop rotating after the control device has not been moved for a few seconds. To exit this mode, simply click on the icon again.



AAV OPERATING RANGE

The AAV has two factors which limit its operating range. The first is fuel - the AAV carries enough fuel to propel it for 264 km (165 miles). If your AAV runs out of fuel, it is basically stuck, unless you can bring your Carrier within range and use its tractor beams to dock the AAV (for which no fuel is required), otherwise you will have to send another AAV or a Manta to destroy it.

Since the AAV is remotely controlled from the Carrier, its first-person view has to be transmitted from the AAV back to the Carrier using an encrypted video signal. Because of the nature of this signal, the range of the AAV is limited to a fixed distance from the Carrier. Once the AAV begins to become out of range (at around 20 kilometres), the telemetry signal weakens considerably and the picture quality worsens. If the AAV travels further from the Carrier (up to around 26 km), the signal is completely lost and the AAV self-destructs to avoid it falling into the hands of the enemy.

AAV STATUS DISPLAY

The centre of the AAV's Direct Control display, between the two groups of icons, contains the Status Display. This consists of a mini screen of information, which shows the following:

POSITION This is the AAV's current position, shown as two X.Y coordinates in relation to the centre of the map.

BEARING This is the bearing of the AAV, shown as a standard compass value between 000 and 359.

ISLAND This shows the name of the island of which the AAV is currently within range.

Please refer to the **AAV FITTING** section for information concerning the addition of weaponry to the AAV's payload.

WEAPONRY SYSTEMS

The AAV can carry one of two weapon types at any one time, and they both have a limited usable life.

AVATAR CHEMICAL LASER

The Avatar laser is of the high power pulsed chemical variety. The unit contains its own power and reactant supply, which means that it can operate even if the AAV on which it is mounted has run out of fuel. However, its life is limited to forty shots, after which it has to be returned to the Carrier Stores to be automatically recharged.

Select the **LASER** icon, and then select direct control mode. Press the fire button to release a twin bolt laser.



HARBINGER SURFACE-TO-SURFACE MISSILE

The Harbinger is a sophisticated operator controlled missile which was designed specifically for installation on the AAV. Using an advanced impact warhead, it is especially potent when used against close range ground or sea-based targets.



Select the **MISSILE** icon at the bottom left of the panel. Point the AAV towards your target, press the fire button and a Harbinger missile will be launched at the target. Missiles can be directly controlled by the player (wire guided) until either they hit something or the propellant is exhausted.

DROPPING CARGO PODS

The AAV has a versatile cargo pod facility which enables it to carry a number of different types of cargo, although it can only carry one pod at a time.



To release a cargo pod, click on the **POD** icon, whilst in pointer mode, and then to release it, press the fire button in direct control mode.

The cargo pod type is selected during the Fitting stage, and is selected from one of the following:-

AUTOMATIC CONTROL CENTRE BUILDER (ACCB)

The ACCB pod is the cornerstone of your assault on the island complex. It is a highly advanced computer and droid combination which, when deposited on an uncontrolled island, instigates the construction of the Command Centre, which from then on controls the island, and builds the island's defences and/or manufacturing units (e.g. fuel rigs, factories, etc). It is possible for the Command Centre to be destroyed while it is building.

There are three ACCB variations, one for each island type which can be constructed. They are:-

Defence ACCB

(for protecting the rest of the network)

Resource ACCB

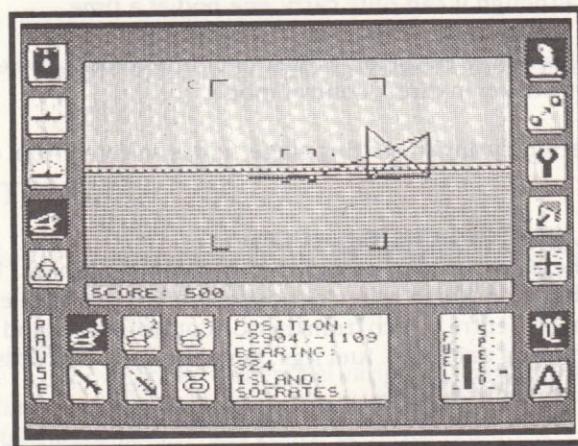
(where raw materials are mined and refined)

Factory ACCB

(where raw materials are used to build equipment)

Only one ACCB can be successfully dropped on an island at a time, and once it starts to construct the Command Centre, dropping of further ACCB's by either your forces or the enemy's will have no effect. The construction of a Command Centre is unstoppable, and to recapture an island that has had an enemy ACCB planted on it, you will have to wait until construction of the Command Centre has been completed.

If you wish to change the nature of an island (e.g. turn a Defensive island into a Factory island) you will have to destroy the Command Centre and drop a fresh ACCB. If a Command Centre is destroyed, the other objects on the island are dismantled, and their constituents are redeployed into the network as resources, although some of the resources are lost in the dismantling process.

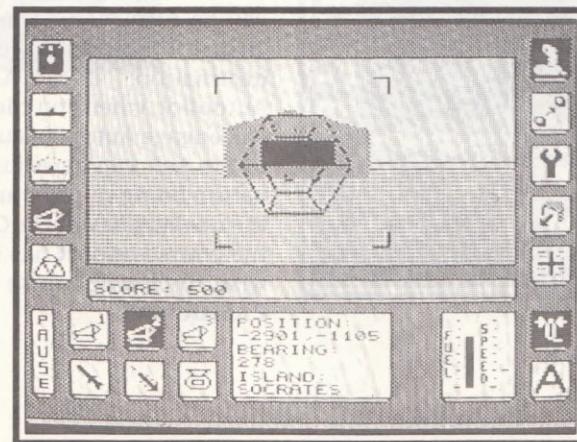


VIRUS BOMB

Once an enemy-deployed ACCB has constructed a Command Centre on an island, it can be destroyed by the application of vast quantities of firepower (Command Centres are defended by extremely powerful Neutron Shields).

Alternatively, you can equip an AAV with a Remote Reprogramming Virus Bomb, which, when fired at the opening of a Command Centre will explode, and immediately infect and realign the Command Centre's control systems, so that its allegiance is changed to that of your forces, and the island becomes part of your network. When this happens, any defences, manufacturing plants, and other island-based features will work for your forces and against the enemy.

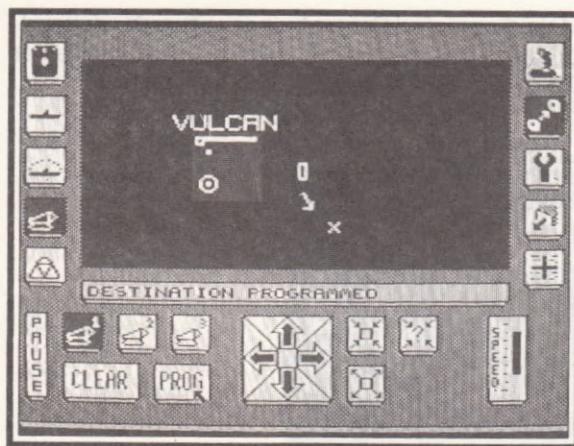
The time taken between the virus being planted and the Command Centre being captured is dependent upon the island's position within the island complex - if it is an outpost island, it will be easier to capture than an island with a more centralised network position.



AAV NAVIGATION

The AAV Navigation section is your interface with the Carrier's advanced Navigation Computer. From this section, you are able to set an individual course for each AAV.

To set a course, firstly click on the AAV that you wish to set the course for. The AAV must be either in the docking bay, or currently active. Use the map manipulation icons (as described in the Carrier Map Command section) to zoom in to the required resolution, and then click on your chosen destination point. A small diagonal cross-hair marker will be plotted at this point.



Next, you should select the speed at which you wish the AAV to travel, by clicking on the speed indicator situated at the bottom right of the screen. To program the settings into the Navigation Computer, click on the **PROG** icon, and the message **DESTINATION PROGRAMMED** will be displayed. The AAV will immediately change its course and head for the programmed destination. If the AAV is not already on Autopilot, when you click on the **PROG** icon, it will engage Autopilot automatically. The speed of the AAV can be adjusted without its destination being re-programmed. If the AAV is in the docking bay of the Carrier, it will adhere to the course once it has been launched. If you wish to clear a course program, click on the **CLEAR** icon.

It is important to always bear in mind the fact that AAVs have only a limited range, for two reasons. Firstly, their fuel tanks dictate their maximum travelling distance - and if an AAV runs out of fuel, the only way of recovering the vehicle is to take the Carrier to the AAV, position it so that the docking bay is covering it, and bring the AAV in under control of the Carrier. However, if the AAV is in the docking cone when it runs out of fuel, then you can still recall it. Secondly, the Carrier's remote AAV control systems have a limited telemetry range before they become susceptible to jamming by the enemy, and unless kept in range of the Carrier, the AAV telemetry signal will initially weaken, and then be totally lost. If this happens, the AAV will self-destruct, in order to avoid the possibility of its control being taken over by the enemy.



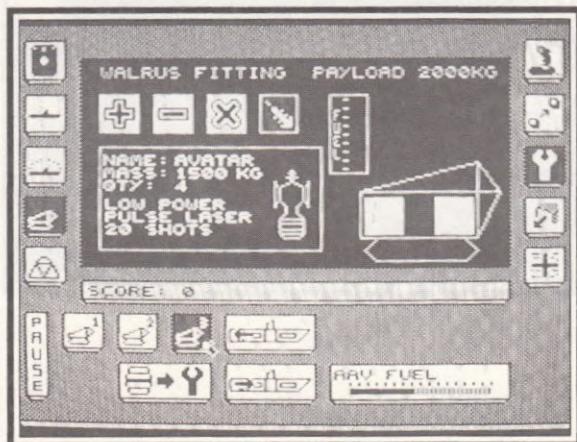
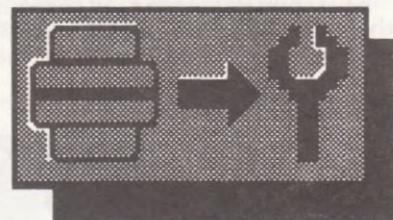
Clicking on the **CENTRE ON VEHICLE** icon will jump to the second highest resolution and centre the display on either the currently selected AAV.

AAV FITTING



Prior to an AAV being launched from the Carrier, it needs to be refuelled and fitted with a supply of weaponry. When originally manufactured, the AAV does not contain any weapons, and whenever it is returned to the Carrier's hangar, all weapon systems are removed and returned to the stores, although the fuel tanks are not emptied.

To fit an AAV, it must be in the hangar (if an AAV is destroyed while in service, and a spare AAV is available in the Carrier's stores, you can click on the **REPLACE VEHICLE** icon). Click on one of the AAV icons to select which one you wish to fit.



The right-hand side of the screen displays a side view of the AAV, with its two mounting points, a bar indicator to the left, showing how much fuel is on-board the AAV, and the maximum payload, shown in kilograms.

REFUELLED

To select the quantity of fuel for the AAV, click directly on the fuel indicator. In the bottom right corner of the screen is a bar indicator showing how much AAV fuel is stored on the Carrier.

FITTING WEAPONS

The left-hand side of the display contains the Payloads section. Cycle through the range of available weaponry by clicking on the + and - icons. For each weapon, you are told the quantity available in the stores, its weight, and a description of the weapon along with a graphical representation to the right, and a general weapon type graphic above.

There are two types of equipment available for mounting on an AAV, one is a forward facing weapon such as a chemical laser or a missile, and the other is a pod-type cargo, which is dropped from the rear of the AAV. Once you have selected a piece of equipment, click on the mounting point on the AAV itself. If the equipment brings the payload weight of the AAV above its maximum limit, if the equipment is unsuitable for mounting in the selected position, or if there is simply no stock of the item, you will be informed with a suitable message.

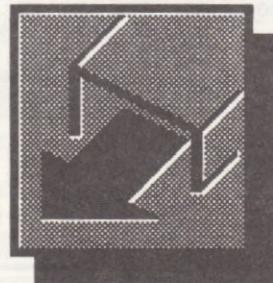
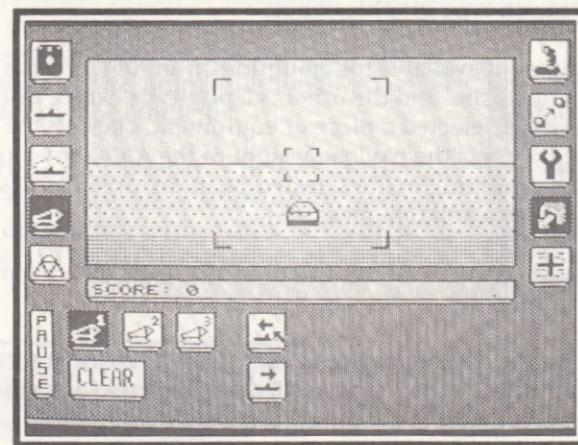
When the piece of equipment is successfully fitted on the AAV, the current payload total will be displayed in the message screen.

Certain weapons, such as the Harbinger missile are able to be carried in multiple quantities. In cases such as these, different quantities of the weapon will be represented as separate weapon selections. The ACCB pods are also represented in a similar fashion.

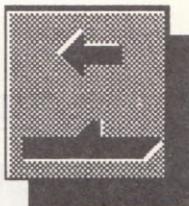
At any time, you are able to mount an alternative piece of equipment simply by clicking on the X icon, which removes all equipment from occupied mounting points.

AAV TRAFFIC CONTROL

LAUNCHING AN AAV

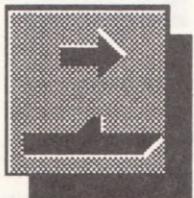


Once an AAV has been refuelled, fitted with appropriate weaponry, and prepared for service, it is ready for launch. The Traffic Control screen shows a display from a camera mounted on the Carrier's deck, facing towards the stern.



Select the AAV which you wish to launch by clicking on one of the AAV icons, then click on the **LAUNCH** icon. The bow door opens, and the AAV drives out and stops once it is safely clear of the docking cone area (unless it has a programmed course, in which case it will carry on to its destination). Once it has stopped moving, the AAV will change course and drive in a circular motion, maintaining a holding pattern until a new course is programmed or manual control is assumed.

DOCKING AN AAV

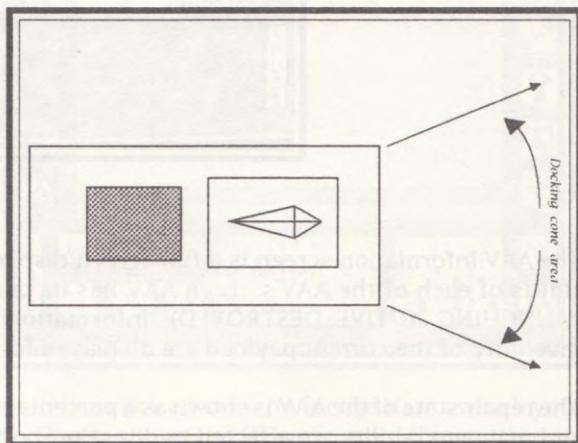


Providing an AAV is within the docking cone area at the rear of the Carrier, you can tell it to dock by clicking on the **DOCK AAV** icon. The AAV will be automatically switched to Autopilot mode. Once an AAV has docked, it is returned to the hold, and stripped of its weaponry, ready for re-fitting. If the AAV's Repair State is below 75%, it will

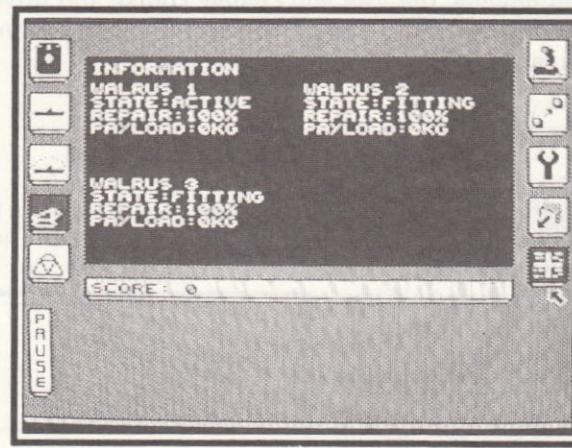
be automatically repaired before it is returned to fitting.

To abort the docking procedure, click on the **CLEAR** icon.

Note that only one AAV can be safely launched or docked at a time.



AAV INFORMATION



The AAV Information screen is a full screen display split into three sections, showing the current status of each of the AAV's. Each AAV has its current status displayed (e.g. IN DOCK, FITTING, LAUNCHING, ACTIVE, DESTROYED). Information such as its repair state, payload weight and an inventory of the current payload are displayed for each AAV.

The repair state of the AAV is shown as a percentage. If the AAV sustains a number of hits, its speed and manoeuvrability are affected in direct proportion to its repair state. If the repair state drops below 12%, the AAV develops a fuel leak, in which case you have to dock with the Carrier for repairs before the AAV runs out of fuel. If the repair state becomes too low for the AAV's structure to contain, it will explode.

AIRCRAFT CONTROL

DIRECT CONTROL

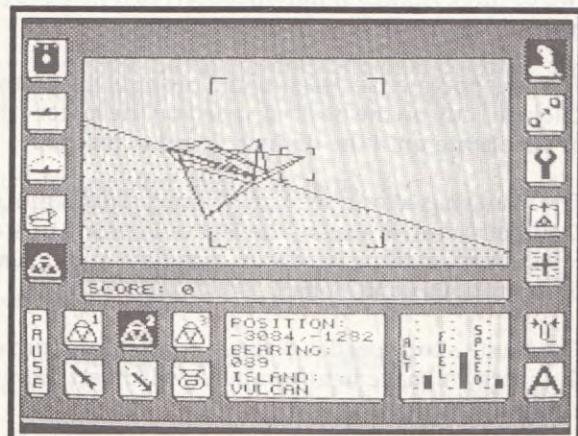


The 'Manta' (Multi-role Aircraft for Nautical Tactical Assault) class aircraft was developed especially for deployment on-board the Carrier, and as a result, it has a number of distinctive features, such as its ability to take off and land on the Carrier or an island-based runway, its variable combat speeds, and its ability to carry a wide range of different weaponry and equipment types.

The Carrier can store up to six Mantas, although only three can actually be active at a time. If all six Mantas have been supplied to the Carrier, excess aircraft will be stored on the designated Stockpile island and shipped back when required. The active Mantas are stored in the Carrier's aircraft hangar, where they are fitted, refuelled, and repaired. Information regarding Flight Path plotting, Fitting, and Launching/Landing of the Mantas on the Carrier can be found in later sections of this Operations Guide.



Once a Manta has been fitted, sent to the Flight Deck, and launched, select the **Direct Control** icon, and then click on the icon for the Manta which you want to take direct control of. The Manta will be flying in a holding pattern in the vicinity of the Carrier (or the place where the Carrier was when the Manta was launched). To assume control of the Manta, disengage the **AUTOPILOT** facility, and select direct control mode.



FLYING THE MANTA

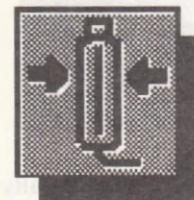
To control the Manta, move to the left and right to bank the plane (the further you move, the steeper the turn), and pull backwards/push forwards to pitch up and down to affect its altitude. The altimeter is located towards the bottom right of the control panel - it is highly advisable to check your altitude every few seconds when flying low over the sea or an island, as even a slight collision will result in damage of the Manta's underbody. When flying close to, or over a volcano, it is important to avoid colliding with the rocks that are discharged from the volcano's mouth.

Near the bottom right of the panel is the **CENTRE UP** icon. By selecting this option, the Manta will always level out its angle of bank and pitch when you are not manoeuvring the plane. This is a very useful feature if you are controlling two or three Mantas simultaneously, as it helps to prevent them crashing if you have to keep switching between planes.

The speedometer is also situated towards the bottom right of the control panel. Click directly on the desired speed on the meter - the Manta will then accelerate or decelerate until the defined speed is reached.

The Manta has a top speed of 675 mph (1080 kmh) and a minimum flight speed of around 150 mph (240 kmh), below which, the Manta is prone to stalling. Fortunately, the plane has some highly reliable anti-stalling hardware installed, and this mechanism has never yet failed, even under the most arduous conditions.

The Manta's top speed is directly related to its current repair state - if the Manta becomes damaged, the energy management computer will divert power away from the plane's plasma drive, in order to energise the shields.



MANTA OPERATING RANGE

The Manta has two factors which limit its operating range. The first is its telemetry range. Since the Manta is remotely controlled from the Carrier, its first-person view has to be transmitted from

the Manta back to the Carrier using an encrypted video signal. Because of the nature of this signal, the range of the Manta is limited to a fixed distance from the Carrier. Once the Manta begins to become out of range (at around 20 kilometres), the telemetry signal weakens considerably and the picture quality worsens. If the Manta travels further from the Carrier (up to around 26 km), the signal is completely lost and the Manta self-destructs to avoid it falling into the hands of the enemy.

The second limit on the aircraft's range is fuel consumption. The Manta's tanks contain enough fuel to keep it in the air for about 163 km (101 miles). If your Manta runs out of fuel, it will spiral downwards into the ground or sea. Great care should be taken to ensure that the Manta is always within refuelling range of the Carrier, or alternatively, within range of an island equipped with a runway and fuel supply.

MANTA STATUS DISPLAY

The centre of the Manta's Direct Control display, between the two groups of icons, contains the Status Display. This consists of a mini screen of information, which displays the following:

POSITION	This is the Manta's current position, shown as two X,Y coordinates in relation to the centre of the map.
BEARING	This is the bearing of the Manta, shown as a standard compass value between 000 and 359.
ISLAND	This shows the name of the island of which the Manta is currently within range.

Please refer to the **MANTA FITTING** section for information concerning the addition of weaponry to the Manta's payload.

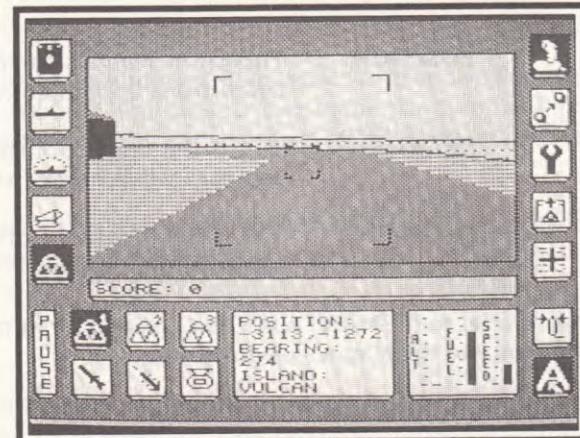
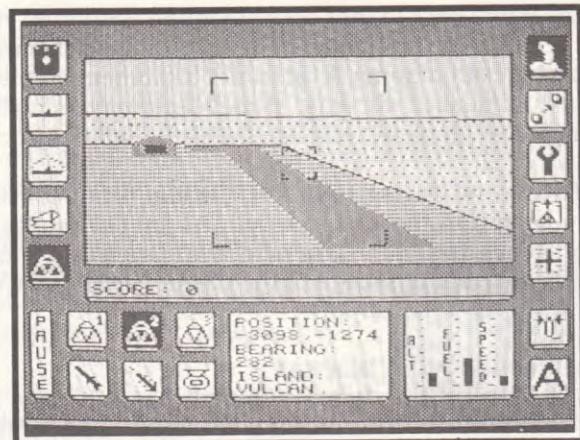
LANDING ON A RUNWAY

The Command Centres are programmed to build runways on some islands so that you can land your aircraft and refuel them.

To land on a runway, you must approach it from the far end, flying towards the refuelling area. Keep your altitude low and decrease in speed as you near the runway. Most importantly, keep yourself as parallel to the ground as possible - the more acute your landing angle, the more chance you have of crashing.

Once you make contact with the runway (and providing you haven't crashed), the Command Centre on the island will immediately take control of the aircraft, and taxi it to a refuelling bay. The Manta will be automatically refuelled, and readied for take-off.

To launch the aircraft, click on the highlighted **AUTOPILOT** icon - the Manta will taxi out to a position in the centre of the runway, and then accelerate up to a speed at which it can take off. The Command Centre's Aircraft Control System is fairly crude, and it will not take evasive action if, for instance, a Walrus is parked in the middle of the runway. Once the Manta has taken off, it is put into a holding pattern, circling above the runway area on Autopilot.



To resume direct control, simply click on the **AUTOPILOT** icon to deselect it, and then enter Direct Control mode. Please note that only one Manta may occupy the runway at a time.

WEAPONRY SYSTEMS

The Manta can carry a variety of payloads, mounted on the underside of the wings and fuselage. These are attached to the aircraft in the **Aircraft Fitting** section, and this procedure is explained further on in this manual.

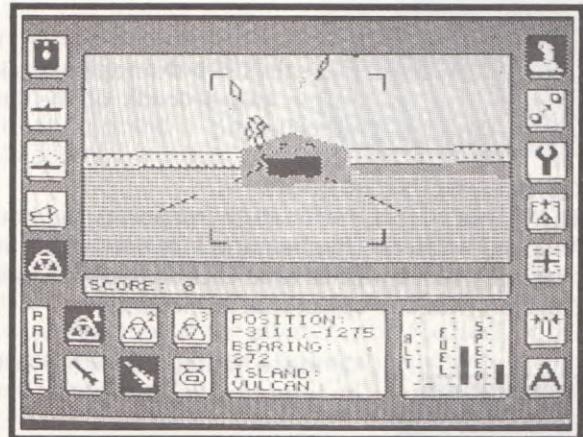
QUASAR GROUND ATTACK LASER

This fuselage mounted multi-beam laser was originally designed to provide an effective laser unit for destroying ground based targets. However, although it is of the slow pulse variety, it is very potent when used against close range airborne targets as well.

The Quasar's laser generator is powered directly from the Manta's plasma energy drive, and therefore has an unlimited firing life, and it rarely, if ever overheats.



To use the laser, select the **LASER** icon, and then select direct control mode. A targeting sight is projected onto the centre of the display. Press the fire button to release a twin laser bolt. The Quasar has a very fast reload time, which means that a barrage of laser bolts can be rapidly fired at the target.



ASSASSIN AIR-TO-AIR MISSILE

The Assassin is the very latest of the intelligent heat-source seeking missiles. It is the smaller brother of the potent Hammerhead surface missile. It has a short-burn plasma jet propellant, and is constructed from an extremely light and rigid carbon-fibre/titanium composite. The on-board guidance system locks on to the heat pattern of the target, and then keeps track of it until the target is out of range, or the missile's propellant is exhausted.

Its main propose is to destroy other air-based targets. It can be used against ground installations, but it is more advisable to use a laser against targets such as these.

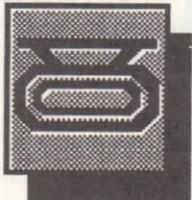


Select the **MISSILE** icon at the bottom left of the control panel. To aim a missile, move the sight over your prospective target and press the fire button. Providing the target is a legitimate one, the sight will flash rapidly, signalling that it is ready to launch a missile.

Press the fire button again to launch the missile. If the fire button is not pressed within two seconds of the targeting system locking on, the target will be cancelled.

QUAKER CLUSTER BOMB

The Manta's most devastating weapon is the bouncing Quaker cluster bomb. The Quaker is a multiple warhead fragmentation device, which is designed to throw out a number of smaller proximity-fused warheads on each impact with the ground, and the bomb's core will detonate upon collision with any object that it encounters.



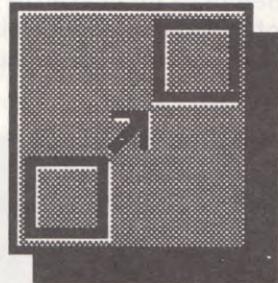
Owing to limitations in the warhead design, the Quaker will not skim or bounce on impact with the sea.

To select the bomb, click on the **CARGO** icon which is situated towards the bottom left of the control panel. Fly towards your target and then press the fire button to release the bomb. As it falls downwards it will assume the velocity and direction of the aircraft at the point of release. If the bomb doesn't collide with a target after three or four bounces, it will detonate automatically.

AIRCRAFT NAVIGATION

The Aircraft Navigation section is your interface with the Carrier's advanced Navigation Computer. From this section, you are able to plot individual flight paths for each of the aircraft.

To set a flight path, firstly click on the aircraft that you wish to set the course for. The aircraft must be either in the air, on a runway, or on the deck ready for take-off. Use the map manipulation icons (as described in the Carrier Map Command section) to zoom in to the required resolution, and then click on your chosen destination point. A small diagonal cross-hair marker will be plotted at this point.



Next, you should select the altitude and speed at which you wish the aircraft to fly, by clicking on the icons situated at the bottom right of the screen. To program these settings into the Navigation Computer, click on the **PROG** icon - the message **DESTINATION PROGRAMMED** will be displayed in the message window. Provided the aircraft is on Autopilot, and in the air, it will immediately change its course and head for the programmed destination. If the aircraft is on the deck of the Carrier, or docked on a runway, it will adhere to the flight-path once it has been launched. If you wish to clear a flight-path program, click on the **CLEAR** icon.

It is important to always bear in mind the fact that aircraft have only a limited range, for two reasons. Firstly, their fuel tanks dictate their maximum flight distance. Secondly, the Carrier's remote aircraft control systems have a range of only a few miles before they become susceptible to jamming by the enemy, and unless kept in range of the Carrier, the aircraft telemetry signal will initially weaken, and then be totally lost. If this happens, the aircraft will self-destruct (by plunging into the sea or land), in order to avoid the possibility of its control being taken over by the enemy.

Clicking on the **CENTRE ON VEHICLE** icon will jump to the second highest resolution, and centre the display on either the currently selected Manta.



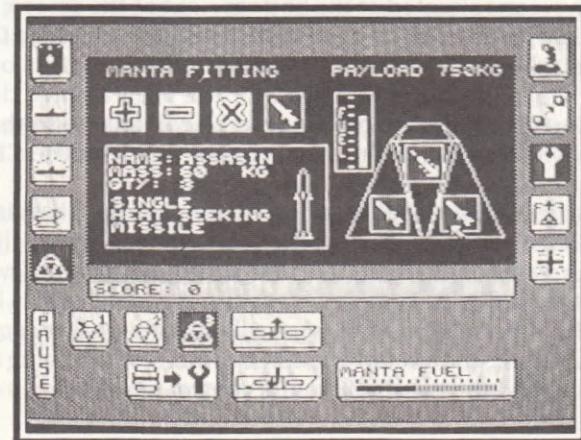
AIRCRAFT FITTING

Before an aircraft can be launched from the Carrier, it needs to be refuelled and fitted with a supply of weaponry. When originally manufactured, the aircraft do not contain any weapons, and whenever they are returned to the Carrier's hangar, all weapon systems are removed and returned to the stores.



To fit an aircraft, it must be in the hangar (if an aircraft is destroyed while in service, and a spare aircraft is available in the Carrier's stores, it can be transported to the hangar as a replacement by clicking on the **REPLACE VEHICLE** icon). Click on the aircraft icon to select which one you wish to fit.

The right-hand side of the screen displays an underside view of the aircraft, with its mounting points, a bar indicator to the left, showing how much fuel is in the aircraft's twin tanks, and the maximum payload indicator, displayed above, in kilograms.



REFUELING

To select the quantity of fuel for the plane, click directly on the fuel indicator. In the bottom right corner of the screen is a bar indicator showing how much aircraft fuel is stored on the Carrier.

FITTING WEAPONS

The bottom left-hand quarter of the display contains the Payloads section. Cycle through the range of available weaponry by clicking on the + and - icons. For each weapon, you are told the quantity available in the Stores, its weight, and a description of the weapon along with a graphical representation to the right, and a general weapon type graphic above.

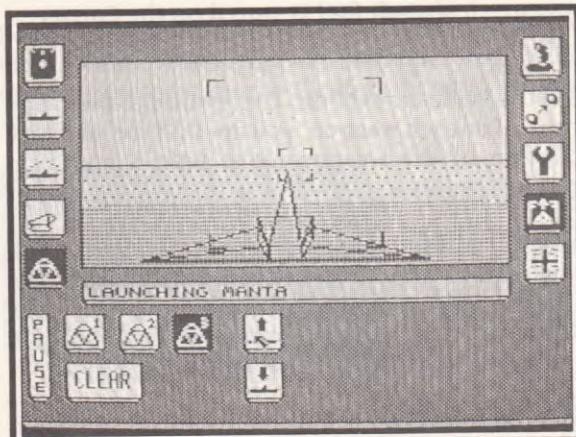
Once you have selected a weapon type (you are generally advised to mount a Quasar ground attack laser cannon in the centre mounting, unless you require alternative weaponry for particular missions), click on the mounting point itself, and the weapon will be automatically installed. If the weapon brings the payload weight of the aircraft above its maximum limit, or if the weapon is unsuitable for mounting in the selected position, you will be informed by a suitable message.

At any time, you can remove all the equipment from the Manta by clicking on the x icon, and then start again.



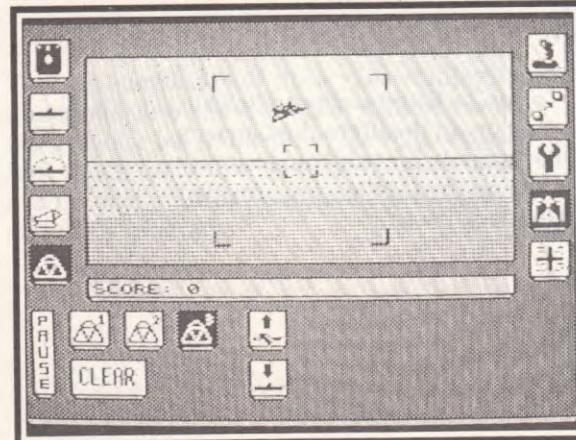
To send a fitted and refuelled aircraft up on the lift to the Carrier's deck, ready for launching, simply click on the **DECK** icon, provided the deck is clear.

AIRCRAFT TRAFFIC CONTROL

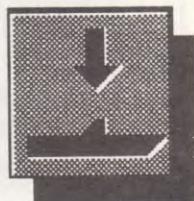


Once an aircraft has been fitted with a suitable quota of weaponry, and it has been refuelled, repaired and sent to the flight deck prepared for take-off, you are ready to launch.

Select the aircraft you wish to launch by clicking on one of the aircraft icons, and click on the **LAUNCH** icon. Once the aircraft has been launched, it will be locked into a circular holding pattern until direct control is assumed.



Providing a Manta is within range of the Carrier, by clicking on the **LAND** icon, the aircraft will be automatically switched to autopilot mode and brought in to land on the flight deck. Once the Manta has landed, it can be returned to the hangar and stripped of its weaponry, ready for re-fitting. If the aircraft's Repair State is below 75%, it will be automatically repaired before it is returned to fitting. It is possible to abort the automatic landing sequence at any time by clicking on the **CLEAR** icon. Note that only one aircraft can occupy the flight deck at a time.



AIRCRAFT INFORMATION

Aircraft Information is a full screen display split into three sections, showing the current status of each of the Mantas. Each aircraft has its current status displayed (e.g. IN HANGAR, FITTING, LAUNCHING, ACTIVE, DESTROYED). Information such as its repair state, payload weight and an inventory of the current payload are displayed for each Manta.

The repair state of the Manta is shown as a percentage. If the Manta sustains a number of hits, its speed and manoeuvrability are affected in direct proportion to its repair state. If the repair state drops below 12%, the Manta develops a fuel leak, in which case you have approximately two minutes to land on the Carrier for repairs before the Manta runs out of fuel and crashes. If the repair state becomes too low for the Manta's structure to contain, it will explode.

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